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PTO/SB/08a (08-03)

Approved for use through 07/31/2008. OMB 0851-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

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Sheet 1 of 5

Application Number	10/784,904
Filing Date	February 23, 2004
First Named Inventor	Ma, et al.
Group Art Unit	Unknown 2823
Examiner Name	Unknown William M. Brewster
Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
Submission Date	March 31, 2004

## **U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
9/B	A1	US-6645838	11/11/2003	Talwar, et al.	X
9/B	A2	US-6635588	10/21/2003	Hawryluk, et al.	
9/B	A3	US-6559520	05/06/2003	Matsuki, et al.	
9/B	A4	US-6544900	04/08/2003	Raaijmakers, et al.	
9/B	A5	US-6458718	10/01/2002	Todd	
9/B	A6	US-6410463	06/25/2002	Matsuki	
9/B	A7	US-6387761	05/14/2002	Shih, et al.	
9/B	A8	US-6383956	05/07/2002	Hawryluk, et al.	
9/B	A9	US-6383955	05/07/2002	Matsuki, et al.	
9/B	A10	US-6358829	03/19/2002	Yoon, et al.	
9/B	A11	US-6352945	03/05/2002	Matsuki, et al.	
9/B	A12	US-6348420	02/19/2002	Raaijmakers, et al.	
9/B	A13	US-6303476	10/16/2001	Hawryluk, et al.	
9/B	A14	US-6284686	09/04/2001	Marlor	
9/B	A15	US-6232196	05/15/2001	Raaijmakers, et al.	
9/B	A16	US-6025627	02/15/2000	Forbes, et al.	
9/B	A17	US-5908307	06/01/1999	Talwar, et al.	
9/B	A18	US-5807792	09/15/1998	Ilg, et al.	X

## **FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
9/B	B1	WO 02/097864	12/05/2002	ASM America, Inc.	X	X
9/B	B2	WO 02/080244	10/10/2002	ASM America, Inc.		
9/B	B3	WO 02/065525	08/22/2002	ASM America, Inc.		
9/B	B4	WO 02/065517	08/22/2002	ASM America, Inc.		
9/B	B5	WO 02/065516	08/22/2002	ASM America, Inc.	X	X

Examiner *William M. Brewster*

Date Considered *29 SEP 05*

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2

of

5

Application Number	10784,904
Filing Date	February 23, 2004
First Named Inventor	Ma, et al.
Group Art Unit	Unknown 2823
Examiner Name	Unknown William M. Brewster
Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
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		Number-Kind Code <sup>2</sup> (if known)			
QVB	A19	US-5796116	08/18/1998	Nakata, et al.	
QVB	A20	US-5693139	12/02/1997	Nishizawa, et al.	
QVB	A21	US-5674304	10/07/1997	Fukada, et al.	
QVB	A22	US-5527733	06/18/1996	Nishizawa, et al.	
QVB	A23	US-5480818	01/02/1996	Matsumoto, et al.	
QVB	A24	US-5469806	11/28/1995	Mochizuki, et al.	
QVB	A25	US-5374570	12/20/1994	Nasu, et al.	
QVB	A26	US-5372860	12/13/1994	Fehner, et al.	
QVB	A27	US-5294286	03/15/1994	Nishizawa, et al.	
QVB	A28	US-4834831	05/30/1989	Nishizawa, et al.	
QVB	A29	US-20030082300	05/01/2003	Todd, et al.	
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QVB	A31	US-20030036268	02/20/2003	Brabant, et al.	
QVB	A32	US-20030022528	01/30/2003	Todd	
QVB	A33	US-20020197831	12/26/2002	Todd, et al.	
QVB	A34	US-20020173130	11/21/2002	Pomereade, et al.	
QVB	A35	US-20020173113	11/21/2002	Todd	
QVB	A36	US-20020168868	11/14/2002	Todd	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>4</sup> -Number <sup>5</sup> -Kind Code <sup>6</sup> (if known)				
QVB	B6	WO 02/065508	08/22/2002	ASM America, Inc.	X	X
QVB	B7	WO 02/064853	08/22/2002	ASM America, Inc.		
QVB	B8	WO 01/41544	06/14/2001	ASM America, Inc.		
QVB	B9	WO 98/20524	05/14/1998	Pacific Solar Pty. Limited		
QVB	B10	JP 63-062313 (Abstract Only)	03/18/1988	Fujitsu, Ltd.	X	X

Examiner William M. BrewsterDate Considered 29 Nov 05

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INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

APR 05 2004 (Use as many sheets as necessary)

Sheet

of

5

Application Number

10/784,904

Filing Date

February 23, 2004

First Named Inventor

Ma, et al.

Group Art Unit

Unknown 2823

Examiner Name

Unknown William M. Browster

Attorney Docket Number

AMAT/8830/FEP/PCVD/PJS

Submission Date

March 31, 2004

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		Number-Kind Code <sup>2</sup> (if known)			
9/B	A37	US-20020093042	07/18/2002	Oh, et al.	X
9/B	A38	US-20020022294	02/21/2002	Hawryluk, et al.	
9/B	A39	US-20020019148	02/14/2002	Hawryluk, et al.	
9/B	A40	US-20010055672	12/27/2001	Todd	
9/B	A41	US-20010046567	11/29/2001	Matsuki, et al.	
9/B	A42	US-20010024871	09/27/2001	Yagi	
9/B	A43	US-20010020712	09/13/2001	Raaijmakers, et al.	
	A44	US-			
	A45	US-			
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	A51	US-			
	A52	US-			
	A53	US-			
	A54	US-			

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
9/B	B11	JP 62-171999 (Abstract Only)	07/28/1987	Nippon Telegr & Teleph Corp.	X	X
9/B	B12	JP 58-098917 (Abstract Only)	06/10/1983	Matsushita Denki Sangyo KK		
9/B	B13	JP 2001-189312 (Abstract Only)	05/02/2001	Motorola, Inc.		
9/B	B14	JP 2001-111000	04/20/2001			
9/B	B15	JP 05-102189 (Abstract Only)	04/23/1993	Fujitsu, Ltd.	X	X

Examiner

William M. Browster

Date Considered

29 SEP 05

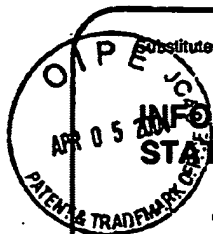
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# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4

of

5

Application Number	10784,904
Filing Date	February 23, 2004
First Named Inventor	Ma, et al.
Group Art Unit	unknown 2823
Examiner Name	Unknown William M. Brunster
Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
Submission Date	March 31, 2004

## U.S. PATENT DOCUMENTS

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		Number-Kind Code <sup>2</sup> (if known)			
	A55	US-			
	A56	US-			
	A57	US-			
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	A67	US-			
	A68	US-			
	A69	US-			
	A70	US-			
	A71	US-			
	A72	US-			

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## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T*
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
WB	B16	JP 05-047665 (Abstract Only)	02/26/1993	Fujitsu, Ltd.	X	X
WB	B17	JP 03-286522 (Abstract Only)	12/17/1991	NEC Corp.		
WB	B18	JP 02-172895 (Abstract Only)	07/04/1993	NEC Corp.		
WB	B19	JP 01-270593 (Abstract Only)	10/27/1989	Fujitsu, Ltd.		
WB	B20	EP 1 150 345	10/31/2001	ASM Japan K.K.	X	X

Examiner William M. Brunster

Date Considered 29 SEP 05

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 5

of 5

Application Number	10/784,904
Filing Date	February 23, 2004
First Named Inventor	Ma, et al.
Group Art Unit	Unknown 2823
Examiner Name	Unknown William M. Brewster
Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
Submission Date	March 31, 2004

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
W/B	1	Choi, et al. "Stability of TiB <sub>2</sub> as a Diffusion Barrier on Silicon," J. Electrochem. Soc., Vol. 138, No. 10, October 1991	X
W/B	2	Debusschere, et al. "Importance of determining the polysilicon dopant profile during process development," J. Vac. Sci. Technol. B 14(1), Jan/Feb 1996	
W/B	3	Earles, et al. "Nonmelt Laser Annealing of 5-KeV and 1-KeV Boron-Implanted Silicon," IEEE Transactions on Electron Devices, Vol. 49, No. 7, July 2002	
W/B	4	Jeong, et al. "Growth and Characterization of Aluminum Oxide Al <sub>2</sub> O <sub>3</sub> Thin Films by Plasma-assisted Atomic Layer Controlled Deposition," J. Korean Inst. Met. Mater., Vol. 38, No. 10, Oct. 2000	
W/B	5	Jeong, et al. "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001	
W/B	6	Lee, et al. "Cyclic Technique for the Enhancement of Highly Oriented Diamond Film Growth," Thin Solid Films 303 (1997) 264-269	
W/B	7	Paranjpe, et al. "Atomic Layer Deposition of AlO <sub>x</sub> for Thin Film Head Gap Applications," J. Electrochem. Soc., Vol. 148, No. 9, Sep. 2001	
W/B	8	Talwar, et al. "Junction sealing using lasers for thermal annealing," Solid State Technology, Vol. 46, Issue 7, July 2003	
W/B	9	Yamshita, et al. "Kinetics of Boron Activation by Flash Lamp Annealing," Extend Abstracts of the 2003 International Conference of Solid State Devices and Materials, Tokyo, 2003, pp. 742-743	X
	10		
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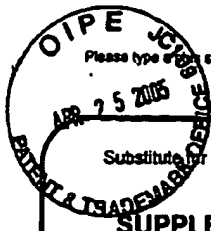
Examiner

William M. Brewster

Date Considered 29 SEP 05

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**SUPPLEMENTAL INFORMATION  
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Sheet 1

of 1

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Group Art Unit	2812 2823
Examiner Name	Unknown William M. Brewster
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Submission Date	April 22, 2005

**U.S. PATENT DOCUMENTS**

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		Number-Kind Code <sup>2</sup> (if known)			
QVB	A1	US-6451119 B2	09/17/2002	SNEH, ET AL.	X   X
QVB	A2	US-6335280 B1	01/01/2002	VAN DER JEUGD	
QVB	A3	US-6291319 B1	09/18/2001	YU, ET AL.	
QVB	A4	US-20050079691 A1	04/14/2005	KIM, ET AL.	
QVB	A5	US-20030189208 A1	10/09/2003	LAW, ET AL.	
QVB	A6	US-20020145168 A1	10/10/2002	BOJARCZUK, JR., ET AL.	
	A7				

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>2</sup> -Number <sup>2</sup> -Kind Code <sup>3</sup> (if known)				
	B1					

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QVB	C1	International Search Report mailed February 22, 2005 for PCT/US2004/030872 (AMAT/8539-PCT)	X
QVB	C2	Kamins, et al. "Kinetics of selective epitaxial deposition of Si <sub>3</sub> Ge <sub>4</sub> ", Applied Physics Letters, American Institute of Physics. New York, US, vol. 61, no. 6, 10 August 1992, pp. 669-671	
QVB	C3	Menon, et al. "Loading effect in SiGe layers grown by dichlorosilane- and silane-based epitaxy", Journal of Applied Physics, American Institute of Physics. New York, US, vol. 90, no. 9, 1 November 2001, pp. 4805-4809	
QVB	C4	Sedgwick, et al. "Selective SiGe and heavily As doped Si deposited at low temperature by atmospheric pressure chemical vapor deposition", Journal of Vacuum Science and Technology: Part B, American Institute of Physics. New York, US, vol. 11, no. 3, 1 May 1993, pp. 1124-1128	
QVB	C5	Uchino, et al. "A Raised Source/Drain Technology Using In-situ P-doped SiGe and B-doped Si for 0.1 μm CMOS ULSs", Electron Devices Meeting, 1997. Technical Digest, International Washington, DC, USA 7-10 Dec. 1997, New York, NY, USA, IEEE, US, 7 December 1997, pp. 479-482	X

Examiner

William M. Brewster

Date Considered

24 SEP 05

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**SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT BY  
APPLICANT**

**(Use as many sheets as necessary)**

Sheet	1	of	1
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Application Number	10/784,904
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February 23, 2004

First Named Inventor	Ma, et al.
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Ma. et al.

Group Art Unit	2012-2023
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2012-023

**Examiner Name**

Unknown William M. Brewster

Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
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AMAT/8830/FEP/PCVD/PJS

**Submission Date**

June 16, 2005

## U.S. PATENT DOCUMENTS

[illegible]

**Examiner**

William M. Brewster

**Date Considered**

29 SEP 85

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SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT BY  
APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 1

Application Number	10784,904
Filing Date	February 23, 2004
First Named Inventor	Ma, et al.
Group Art Unit	2848-2823
Examiner Name	William M. Brewster
Attorney Docket Number	AMAT/8830/FEP/PCVD/PJS
Submission Date	July 22, 2005

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
WB	A1	US-6100171	08/08/2000	Ishida	X
WB	A2	US-5966605	10/12/1999	Ishida	X
WB	A3	US-5399508	03/21/1995	Tsutamoto	X
	A4				
	A5				
	A6				
	A7				
	A8				
	A9				
	A10				
	A11				

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> -Number <sup>3</sup> -Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
WB	B1	WO 01/71787 A1	09/27/2001	Varian Semiconductor Equipment Associates, Inc.	X	X
	B2					
	B3					
	B4					

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>5</sup>
WB	C1	International Search Report dated June 23, 2005 regarding International Application No. PCT/US2005/004318 (AMAT/8830-PCT)	X
WB	C2	Goto, et al. "Ultra-Low Contact Resistance for Deca-nm MOSFETs by Laser Annealing", Electron Devices Meeting, 1999. IEDM Technical Digest. International Washington, DC, USA 5-8 Dec. 1999, Piscataway, NJ, USA, IEEE, US, 5 December 1999 (1999-12-02), pp. 931-933, XP010372208	X

Examiner

William M. Brewster

Date Considered

29 SEP 05

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